METROPOLITAN
TRANSPORTATION
COMMISSION

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July 6, 2016

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Unlicensed National Information Infrastructure Devices in the 5 GHz Band

Dear Secretary Dortch:

As the Bay Area's Metropolitan Planning Organization, the Metropolitan Transportation Commission (MTC) sets a bold planning vision for the region and invests in improvements that support sustainable mobility and economic growth of the San Francisco Bay Area. We believe that Connected and Automated Vehicles (CAV) will play an important role in achieving that vision. MTC and the California Department of Transportation (Caltrans) have participated in the national CAV efforts since its inception in 2004, including launching one of the nation's first CV Test Beds along El Camino Real in Palo Alto. MTC and our regional partners are investing in projects that use Dedicated Short Range Communications (DSRC). These regional investments are shown in the attached table. MTC expects DSRC-based technologies to play a critical role in many of the transportation programs that it operates and/or administers.

I am writing today to urge the Commission to preserve the 5.9 GHz band and its channelization as designed for DSRC safety-of-life benefits and mobility applications. DSRC-based applications promise significant safety benefits and utility to the traveling public. The dissemination of DSRC is now poised for near-term deployment and holds the potential to save tens of thousands of lives every year. Any sharing protocol must accommodate currently deployed and planned deployments of DSRC applications. Thorough testing must be done to ensure that the protocol is safe before any sharing implementation is done.

The following five points underscore why the Commission should preserve the 5.9 GHz band and its channelization as designed:

1. **DSRC is an essential and unique technology for safety-of-life Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I) and Vehicle-to-Pedestrian (V2P) communications.**

MTC's regional planning efforts currently assume that the future will include advances in wireless connectivity between vehicles, infrastructure, and enabled devices to enable us to meet our region's goals of reduced fatalities, greater mobility, and reduced environmental impacts of surface transportation.

2. **DSRC is being deployed this year after years of expensive, rigorous research, development, and testing to ensure safety in all situations.**

For more than a decade, MTC, Caltrans, and other partners have invested in the California Connected Vehicle Test Bed in Palo Alto, CA. This Test Bed continues to be used to support research and development efforts of the U.S. Department of Transportation, academic researchers, and private companies.

3. **Rechannelization will delay and limit the safety benefits of V2V, V2I, and V2P.**

Our investments in the Test Bed include hardware at 11 intersections, and the software development of many applications that are able to tap into the DSRC-based message sets broadcast at each intersection. Rechannelization of the band would impose high and unexpected costs on MTC and our partners in order to reinstall or update equipment and revise system documentation, making near-term deployment of these safety critical devices very difficult.

4. **Any spectrum sharing must be proven to be without interference to DSRC and should adopt a reasonable testing schedule that emphasizes safety, not speed.**

We support the sharing of the 5.9 GHz band on a not-to-interfere basis and with priority to DSRC, as long as it can be positively proven that any unlicensed sharing of the band will not impede the safety-of-life functions of DSRC. The FCC should adopt a reasonable testing schedule based on what is required to determine whether sharing the spectrum can be done safely.

5. **The FCC's chartered purpose is for "promoting safety of life and property through the use of wire and radio communication."**

We appreciate the FCC's goal of finding and devoting more spectrum for Wi-Fi and unlicensed use, but the FCC's stated and statutory purpose is not to promote the commercial purposes of Wi-Fi. We respectfully ask the FCC to focus its review in this proceeding with an emphasis on public safety.

Conclusion

We strongly encourage the FCC to preserve and promote the use of DSRC in the 5.9 GHz according to the current FCC channel plan. We support sharing technologies only if they can be proven safe and without any interference with the safety-of-life functions of DSRC across all channels in the 5.9 GHz band according to the current channel plan.

If you have any questions, please contact Melanie Crotty, Director of Operations, at (415) 778-5280 or mcrotty@mtc.ca.gov.

Sincerely,

Steve Heminger
Executive Director

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Attachment: SF Bay Area Connected Vehicle Projects
CC: Regina Hopper, President and CEO, Intelligent Transportation Society of America
CC: Pat Jones, Exec. Director and CEO, International Bridge, Tunnel and Turnpike Association

ATTACHMENT

SF Bay Area Connected Vehicle Projects

Project Name	Leading Agency	Status	V2V	V2I	V2X	Self-Driving
California Connected Vehicle Test Bed	Caltrans/MTC	Complete	YES	YES		
Carma I-Beacon	CCTA	Complete		YES		
Enlighten Mobile Application	City of Walnut Creek	Complete			YES	
Connected Car Hackathon	MTC	Complete			YES	
MMITSS - CA Demonstration	UCB PATH	Complete		YES	YES	
Smart Bus Stop	VTA	Complete		YES	YES	
VTA Flex On-Demand Dynamic Transit Operations	VTA	Complete		YES	YES	
Google Self-Driving Car	Google	In-Progress	YES		YES	YES
San Jose Transportation Innovation Zone	San Jose	In-Progress		YES	YES	
Mobile Eye Pilot	VTA	In-Progress		YES		
I-80 Connected Corridor ICM	Caltrans	Planning		YES	YES	
Bishop Ranch Autonomous Vehicle Operations	CCTA	Planning		YES	YES	YES
GoMentum Station	CCTA	Planning	YES			YES
I-680 High Tech Corridor	CCTA	Planning		YES		
TriDelta Integrated Dynamic Transit Operations	CCTA	Planning		YES	YES	
FRATIS and ITS Improvements at Port of Oakland	ACTC/Port of Oakland	Planning	YES	YES	YES	
MMITSS-based Transit Signal Priority Evaluation	MTC	Planning		YES		
San Jose Innovative Streetlight Replacement	San Jose	Planning		YES	YES	
San Francisco Smart City Challenge	SFMTA	Planning	YES	YES	YES	YES
Beacon Based Rewards App & Fare Payment	VTA	Planning		YES	YES	
Swift Mile Electric Bikes	VTA	Planning			YES	
VTA Central App	VTA	Planning			YES	